Air Net

The Newsletter of the National EMS Pilots Association

Most of us believe the season of winter to be our slow period. I'm not sure if the seasons are different than we believe them to be or if we are just experiencing a new age for the HEMS industry. What ever the reason I can assure you NEMSPA has been busy throughout the winter.

We have tackled several high visibility topics and we are seeing our hard work begin to pay off. If you have viewed the website you are aware we are working the NVG issue and the survey that appeared on the website is one publicly visible tool. This survey brought many people to our website, both members and non-members. We are very interested in what line pilots feel about the use of NVG's. This tool will allow us to take the views of those pilots to the FAA and operators and hopefully change not only the view of NVG's taken by those entities, but change policy to reflect the current state of NVG's. I hope each of you were able to take the survey. We have meetings scheduled with the FAA to discuss the use of NVG's and issues pertaining to the ways aircraft are certificated for NVG use. There are many non-standard ways the NVG use has been handled and it's time to standardize the process. Other issues we are currently working on are the "Use of radar altimeters", and many of the industry projects that are currently underway. NEMSPA occupies a seat on the research project that Dr. Ira Blumen has undertaken, and we still support the efforts of the IHST.

In addition to these projects the, New Year starts the conference circuit. We started with HAI's HeliExpo in Houston Texas. Our booth was prominently displayed in the exhibit hall and we were able to sign a few new members. In addition we have an agreement with a new corporate sponsor. The show was a good opportunity to meet with and talk to some of our current corporate sponsors and try to recruit new corporate sponsors. The HAI Air Medical Services Committee meeting was held with Gary Campbell presiding. Attendance was good and I was able to attend the meeting as a representative of NEMSPA. Many of the same topics that are of interest to NEMSPA are topics of discussion at these committee proceedings. The second conference is Air Med 2008 which occurs in Prague this May. NEMSPA has been asked to present at the conference, and I will be attending to make a presence for NEMSPA. Currently we have members in several European countries, and I will attempt to meet with them personally while I am at the conference. Being recognized on an international level is a testament to the work NEMSPA is currently doing in the United States. This will further NEMSPA's recognition as a leader in safety within the industry. Also in May, the Flight Safety International Safety Summit is scheduled in conjunction with the AMSAC meeting. Ed MacDonald will be representing NEMSPA while emceeing the summit. The circuit culminates in October with AMTC. This year's conference is in Minneapolis Minnesota. We will still have an ATP Prep Course pre-conference, and the Safety and Aviation tracts are filled with presentations chosen at the AAMS Conference Education Sub-

committee meeting. This year the number of pilots submitting presentations was down, and we hope next year they are again at record levels.

All these show how the NEMSPA board members and president spend time on behalf of the membership. During my tenure as president I have underscored the need for better and continued customer service. I will remain committed to the improvement of our customer service and your satisfaction with the work NEMSPA does on your behalf. This year again we will be seeking involvement from our membership to fill some board of director seats through a general election. If you or someone you know is interested in obtaining a seat on the board please let me know. We will distribute ballots prior to the general membership meeting at AMTC. When you receive your ballot, please exercise your right to vote.

It is an exciting time to be an EMS pilot and there are many changes afoot in the industry. I hope you will join NEMSPA and make it advantageous to pilots across the nation flying EMS. As those of us who have been here a while begin to retire, younger new pilots will join the industry. By keeping NEMSPA a professional organization we can continue to represent the pilots in this to contact a board member or me. We will remain accessible to you, and look forward to helping.

Gary Sizemore
President
National EMS Pilots Association

Joining NEMSPA is easy again!

The NEMSPA website now has a secure ability to accept membership dues. New memberships and renewels may again be done online.

On the Horizon

Memorial Day 26 May 2008

Air Medical Transport Conference 20 -22 October 2008 Minneapolis, Mn.

ATP writeen Prep course will be Saturday and Suncay prior to AMTC Minneapolis

Look for changes to the NEMSPA website coming soon.

HOT TOPICS

Re Authorization Bill still being debated in Congress
NVG issues
Medical crew member status

Weather turn down site. Go to: www.weatherturndown.com

In an effort to cut costs. Beginning July the Airnet will be sent to all members electronically. Hard copies will still be made available on request. The Airnet will also be available on the NEMSPA website.

The Board of Directors would like to thank all the pilots who took the time to participate in the NVG survey. The results of the survey are being compiled and will be available soon. You can look for more surveys like this in the future. It is a way for your voice to be heard. Again, thank you.

Editor

Sleep Inertia and the EMS Pilot

Sleep inertia is defined as "a physiological state characterized by a decline in motor dexterity and a subjective feeling of grogginess, immediately following an abrupt awakening from deep sleep." The ill effects of sleep inertia can easily surpass those of intoxication and can last anywhere from 10 minutes to 3 hours. It's the reason that you're more likely to get in an automobile accident on your way to work in the morning then you are after driving all night.

The impact of the resulting impairment on an EMS pilot is obvious. You went to sleep at 2330 and were then paged out for a flight at 0230 – at the center of a stage 4 sleep cycle, which happens to be a *deep* sleep cycle. By 0235 you're on the helipad, with engines running at 0238. By 0240, just at the point where the effects of sleep inertia *may* be subsiding, you're airborne. Many believe, and some studies have shown, that at the point you lifted from the helipad your physiological state was the equivalent of being legally drunk.

How do you overcome sleep inertia? One idea is that you never go to sleep during a flight shift. The negative consequences of that approach will likely far outweigh the benefits however, as it is known that even short periods of sleep during a night shift will have definite restorative results. Our program highly recommends the "sleep when you can" philosophy, for a number of reasons.

There seem to be a number of suggestions for minimizing the effects of sleep inertia, ranging from playing a short Sudoku game to maybe doing a series of jumping jacks before you attempt anything safety sensitive after awakening from sleep. From a practical standpoint you must certainly begin by being *aware* that you are in a vulnerable state and then *forcing* yourself (remember that human factors term – *motivation*) to be more cognizant of your surroundings. Use checklists religiously and be very deliberate in your actions and decisions.

While from an accident and incident standpoint we will probably never know what the real impacts of sleep inertia are on HEMS operations it would be hard to believe that it has minimal influence. As with many factors in our industry, by maintaining awareness and by understanding the possible consequences, we can minimize the negative influence sleep inertia may have on our own actions and decisions.

Kent Johnson
President Elect NEMSPA
Chief Pilot, Intermountain Life Flight

Thank You to our corporate sponsors!

You can check them out by going to the NEMSPA website and clicking on their logo!

VISIONZERO

Launch Times & Influencing Factors

Over the past several years we as an industry have argued back and forth about the subject of launch times and what constitutes a safe and acceptable philosophy in this regard. There have been several exceptional articles, white papers and best practices written to this end. But what are the actual influencing factors that dictate what a programs safe standard of operation should be? How do the decisions an organization makes, from the type of aircraft used to where the pilot's quarters are located influence how much time it takes to get an aircraft airborne? Which elements can we safely influence or change and which ones should we leave alone?

First let me start by saying that there is no one size fits all when it comes to getting an aircraft into the air. The elements involved are as numerous and varied as the organizations performing air medical operations in the world today. Every program is different, and each one must approach this subject without any preconceived ideas or notions of how things should be so as to thoroughly and completely evaluate what will be the best and safest practices for their organization. This philosophy was best summed up by one pilot who said, *"One must always remember that launch times are task driven and not time driven."*

So as pilots, how do we best plead our case and educate or programs and customers against setting an arbitrary time for launching an aircraft? First, do your homework and be prepared to do some testing, measuring and evaluating. Tools you will need; a stop watch, a note pad, several volunteers, a measuring tape or wheel and a little time. Nothing speaks louder or carries more weight in our industry than a well constructed evaluation with good statistical data to back up your claims. Saying "It's so" just because you say so, isn't going to get the job done. You will need to prove it.

Remember the old adage, "Measure twice cut once"? Same thing applies here. Do each measurement twice and evaluate each time element 10 times using different people to come up with an average for each element. Good quality data will give your case the credence you need.

Distance:

- Measure the distance between where the pilots are located and where the aircraft is.
- Do the same measurement for the flight team's location to the aircraft.

Time: Determine the average for the following:

- Time to walk the distance to the aircraft. *No running allowed!!!*
- Time it takes to wait for an elevator, if one is used to get to the aircraft.
- Time it takes your communication centers to process & page out a flight request.
- Time the pilot needs to do a thorough weather check.
- Time it takes for the pilot and medical team to confirm a flight request.
- Time it takes to do a proper preflight walk around inspection.
- Time it takes for the pilots to safely perform all checklist items.
- Time required for your aircraft and it's systems to be fully operational for flight.
- And anything else that is specific to your programs operation.

INFLUENCING FACTORS

Aircraft:
A single engine aircraft will normally be faster off the ground than a twin engine aircraft due to the additional start and run-up sequence of the second engine. Newer more advanced aircraft, whether they are a single or a twin, in some cases may be quicker to get ready for flight due to the faster and more advanced systems installed.

When an organizations primary aircraft goes in for heavy maintenance and a backup aircraft is utilized for operations, liftoff times will generally increase. This is due to the unfamiliarity of both the pilot and medical team with that particular aircraft, it's on board equipment, systems, and placement of medical assets on the aircraft.

VFR vs. IFR:
VFR aircraft may, depending on installed equipment, be able to takeoff sooner than IFR equipped aircraft. This is due to the time it takes in some cases for certain onboard equipment to become fully operational for flight. Preparing for an IFR flight may take longer than preparing for a VFR flight given the additional flight planning requirements and the need to file an FAA flight plan.

Asset Location:
Where an organization locates its assets has a significant impact on its overall liftoff times. Programs that locate their pilots and medical team members nearer their aircraft will be able to get into the air much faster than those that have a greater distance to travel to get to their aircraft.

Pilots:
Pilot familiarity and experience with equipment, aircraft type, EMS operations and local area play a big roll in how fast an aircraft gets off the ground. Pilots new to an airframe will generally and should take longer to liftoff until they become more familiar with that airframe. The more advanced the airframe and the systems the longer this familiarization period may take. Pilots who are new to an area will generally do more preflight planning when accepting a flight in regards to map reconnaissance, fuel availability, weather and geographical environment.

Medical Team Members:
Just like pilots the experience level and training of an or-

organization's medical team members plays a big role in the efficiency and speed in which a program can respond to a transport request. Senior well trained medical teams will normally equate to faster liftoff times. Medical team members who are required t work in the hospital vs. being dedicated for transport only may also negatively impact the time it takes a program to respond to a flight request.

Patient Type:
The type of patients that you will be transporting can significantly impact your liftoff times. Specialty teams and complicated patients such as neonatal, balloon pumps, ventricular assist devices, or neonatal/ecmo can add significant time to the preparation for liftoff.

Weather:
Weather is probably the most difficult thing to factor into the equation due to the fact that it is constantly changing and completely unpredictable. The distance you will need to travel is directly proportional to the weather time window that you must plan for. The greater the distance the greater the time window needed, hence the longer it will normally take to check the weather to insure that the trip can be safely accomplished. A 10-15 minute trip out and back may only require a weather window of one hour. A trip that is an hour one way will require a weather window of three to four hours depending on aircraft type, airspeed, fuel needs, fuel availability, geographical environment, transport type and patient destination. This may take longer to plan for.

Cold weather can be a big factor in liftoff times. Many aircraft that are based in colder climates may take longer to liftoff depending on cold weather equipment installed and hangar availability. This is due to the manufacture's guidelines that the engine, transmission and hydraulic fluids must reach a minimum temperature prior to liftoff.

Assets available for checking weather play a big roll in how long it takes to evaluate the weather. A faster dedicated weather system vs. a slower internet or phone based system will normally equate to less time needed for doing a weather check.

Distance:
The distance an aircraft will have to travel to pickup a patient and then go to the patient's final destination factors into the time needed to properly prepare. For longer flights a pilot must carefully consider the weather window needed and the fuel requirements for that flight. If fuel is going to be needed then the pilot will have to check on the availability of fuel along the route which is directly dependent on the time of day and the day of the week. In some cases pilots may elect to add additional fuel to the aircraft prior to takeoff so that they can complete a longer flight without the need for stopping to refuel. This in turn will increase the liftoff time.

Destination Familiarity:
Per Federal Aviation Regulations if a pilot has never been to a location or has not been there within the past 90 days he is required by law to become familiar with that location and that locations information prior to liftoff. Depending on the complexity of the mission this could take several additional minutes.

RECOMMENDATIONS:

Given the above information and after your investigative work, you should have a better feel for what is required to launch your aircraft and what would be considered a standard liftoff time for your program. I highly recommended that the best way to quantify this liftoff time would be to use a windowed approach rather than a hard and fast rule of a one size fits all time. This will help you take into account many of the variables listed above. So instead of saying our goal is to be in the air in X minutes, say instead our goal is X to X+4 minutes under normal circumstances, for a single engine aircraft, on a VFR flight, for an adult trauma. You can further subdivide flights that may require a weather check, are outside your local flying area, or utilize a specialty team for transport. All of which will add additional minutes to the equation.

It would be impossible to take into account all of the factors that influence any one flight program or for that matter any one flight. There will always be exceptions to the rule. You will invariably find things that you can do to help improve the process but never sacrifice safety for time.
Many in the industry strongly advise against setting a single one size fits all time standard for the launching of an air medical aircraft. No one wants to inadvertently add pressure to pilots, medical teams, first responders, hospitals, administrators or operators that would negatively impact the decision making process while trying to meet an imaginary, unrealistic standard that will in the end compromise safety. There are things we can change and improve and there are things that we must learn to live with and leave as they are. The trick is, knowing which is which. Like most things in life this usually only comes through trial and error. So if you're going to error, make sure that you always error on the side of safety.

Rex Alexander
Board Member National EMS Pilots Association
Base Manager Lutheran Air Omni Flight
Fort Wayne, In

Hey, what are you doing with your hand on my wallet?

How many of you have asked that question of the people you work with? It may sound strange, but every pilot, mechanic, flight nurse, and paramedic has their hand on your wallet.

Pilots in general are an independent bunch. Most pilots I have talked to in my 40 years of aviation experience would be of the mindset that:

a. I am not my brother's keeper.
b. I'm not management. It's not my place to criticize a fellow pilot.
c. He's (she's) a professional. I won't second guess their decision.

Interesting ideas in an ideal world, but not very practical in the Air Medical world.

Have you ever experienced the question of "What's it like to work for Life Flight?", when actually you work for Care Flight, or Air Med, or Air Evac, or any number of the other great flight teams out there. To the general public, we are one big flight service.

How many of you know crew from various other services around the country?

Our industry is so small, that what one of us does, affects the rest of us. Great news when someone does great things. Not such great news when someone goes out and hurts someone, or breaks something. Then we all get painted with the same brush.

When one of us goes out and breaks something, or hurts someone, then we find the FAA, Congress, the NTSB, State and local governments, and any number of alphabet groups wanting to come in and tell us how things need to be done.

I would suggest that we, the pilots, through such organizations as NEMSPA, are the subject matter experts, and can make a difference in the successful outcome of our industry. We can only make a difference if we raise the bar, and expect better from ourselves and those we work with. None of us is perfect. Help your fellow pilots, mechanics, flight nurses and paramedics to perform their jobs with zero defects, and expect the same from them. Encourage constructive criticism from all you work with and let them know that they can expect the same from you.

Truly, everyone in the Air Medical industry holds the ability to allow you to maintain your livelihood. One too many accidents or incidents could cause a program to decide it's not worth the risk. Too many accidents can cause the government to place demands on operators that could force the closure of bases.

My mistakes can cost every one of you money. Your mistakes can cost me. I will not take offense if you point out my mistakes, and I would hope you would not take offense if I point out yours. Please help me to do the best I can, and I promise that I will help you.

Working together we can make this industry safer to the benefit of all involved.

Be your Brother's keeper.

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The National EMS Pilots Association is a non -profit organization formed by EMS Pilots with the sole purpose of improving Safety in EMS Aviation Operations. We work with many other organizations through committees and working groups to enhance aviation safety. We are always looking for dedicated EMS professionals to join us. This is your organization and we need you! If you have comments on the *Air Net* or wish to contribute please contact the Editor.
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